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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,822	12/18/2001	Norman A. Rudy	DESS117969	4187
26389	7590	10/24/2003	EXAMINER	
CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347			KEASEL, ERIC S	
			ART UNIT	PAPER NUMBER
			3754	

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,822

Applicant(s)

RUDY ET AL.

Examiner

Eric Keasel

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11 and 13-26 is/are rejected.
- 7) ☒ Claim(s) 6 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7, 11, 13-17, 20, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuykendal et al. (US Patent Number 6,565,011).

Kuykendal et al. disclose two high-speed fluid jet blockers. The first embodiment (Figs. 1C-3) anticipates claims 1-3, 11, 13-15, 20, 23, 24, and 26 with multiple electromagnets (4,5,6,7) moving the blocking bar (2,3,9,14,15) to open and close the high-speed fluid jet through exit port (1). The blocking bar has an area of high magnetic permeability (14), a blocking element (2), and a support pivot (9,15) therebetween. First and second limit stops (16,8) limit the travel of the blocking bar. The second embodiment (Figs. 4-6) anticipates claims 1, 2, 7, 13, 14, 16, 17, 20, and 23-25 with a single electromagnet (17) working against the biasing force of spring (20) to open and close the high-speed fluid jet.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4, 5, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuykendal et al. as applied to claims 2 and 20 above, and further in view of Sickles (US Patent Number 5,685,482).

Kuykendal et al. fail to disclose the material selection of carbide or sapphire. Sickles discloses the material selection of carbide or sapphire in a similar high-speed fluid system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the blocking element of Kuykendal et al. from either carbide or sapphire because these materials are resistant to abrasion as taught by Sickles.

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5. Claims 10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuykendal et al. as applied to claims 1 and 14 above, and further in view of Pfarr et al. (US Patent Number 5,931,178).

Kuykendal et al. fail to disclose the inlet and outlet for a cooling fluid to cool the actuator. Pfarr et al. disclose an inlet (36), outlet (35 a or b), and cooling fluid (air) in a similar high-speed fluid jet blocker. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the inlet, outlet, and cooling fluid of Pfarr et al. with the high-speed fluid jet blocker of Kuykendal et al. in order to conduct heat away from the actuator as taught by Pfarr et al.

6. Claims 8, 9, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuykendal et al. as applied to claims 1 and 14 above, and further in view of Kunz et al. (US Patent Number 5,259,416).

Kuykendal et al. fail to disclose reversing the polarity of the current flowing in the solenoid coils to reverse the polarity of the magnetic field. Kunz et al. disclose reversing the polarity of the current in a similar solenoid actuated valve to reverse the polarity of the magnetic field. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the concept of reversing the polarity of the current in the high-speed jet blocker of Kuykendal et al. in order to move the spring-loaded armature and attached valve member to the closed position as taught by Kunz et al.

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Allowable Subject Matter

7. Claims 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

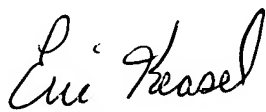
Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Earl, deMay, II, Pfarr et al., Winter, and Ramaker et al. disclose devices with similar features to the disclosed and claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

 22 OCT 03
Eric Keasel
Examiner
Art Unit 3754